

REMARKS/ARGUMENTS

Prior to this amendment, Claims 1-7 and 9-41 were pending. Claims 11-41, which were withdrawn due to a restriction requirement, are canceled herein. In this amendment, Claim 1 is amended and Claims 42-57 are added. Claims 1-7, 9-10 and 42-57 are now pending for further consideration in this application, which is respectfully requested.

Discussion of One Embodiment

This application describes an improved aspiration catheter that has a distal segment that enables *aspiration of embolic material from a location within a filter* (or other structure having a porous member) positioned within a blood vessel. In one technique, a filter 18 is disposed along the distal end of a guidewire 16, which is positioned in a blood vessel downstream of a stenosis 12. The filter 18 captures emboli generated during a therapy, e.g., an angioplasty of the stenosis as illustrated in FIGS. 1C and 1D (shown below).

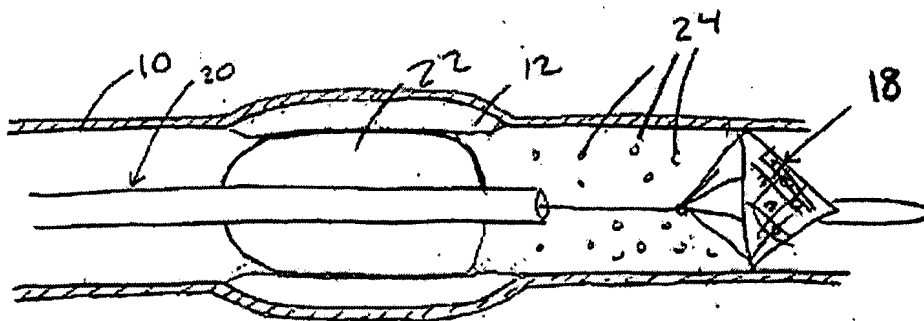


FIGURE 1D

An aspiration catheter 30 as disclosed in this application is particularly well suited for aspirating emboli generated from such procedures, e.g., emboli captured in the filter 18. The aspiration catheter 30 has a guidewire lumen 36 that can be used for advancement over the guidewire 16. Because emboli aspirated through the catheter 30 are permanently removed from the blood vessel, the aspiration lumen 34 and the guidewire lumen 36 need not be in fluid communication with each other. Rather, these lumens can be fluidly isolated from each other to prevent reintroduction into the patient of blood or emboli withdrawn through the aspiration lumen 34.

Also, as shown in Figure 3, the guidewire lumen 36 preferably has a significantly smaller cross-sectional area than the aspiration lumen 34 to enhance the volume through which the aspirate can flow and thus the aspiration capabilities of the catheter 30.

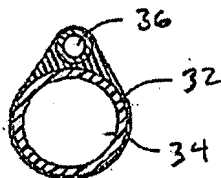


FIGURE 3

A distal segment 42 of the catheter 30 extends distal of a distal port 46 of the guidewire lumen 36 to a distal aspiration port 40. As illustrated in Figure 5C (shown below), *the distal segment 42 can extend to within the filter 18* and can aspirate embolic material inside the filter. Thus, the catheter 30 can be used to remove emboli from a filter, which can help to sustain a patient through a procedure by enhancing flow downstream of the filter.

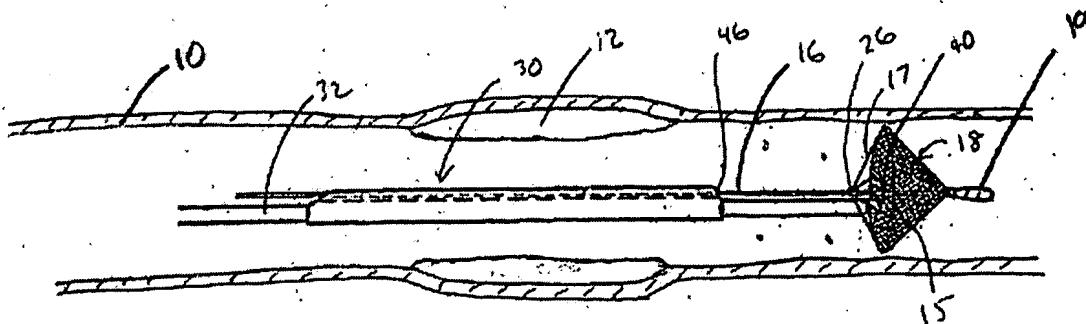


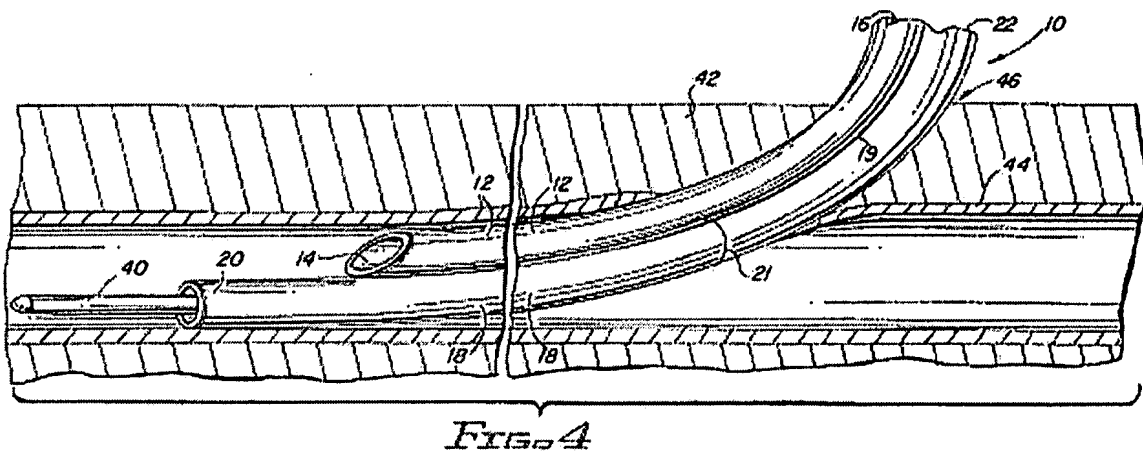
FIGURE 5C

Rejections based on Palestiant

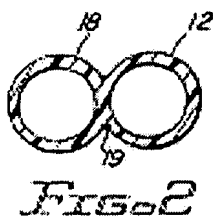
In the Office Action, Claims 1 and 5 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,807,311 to Palestiant (Palestiant). Further, Claims 2 and 6-7 were rejected under 35 U.S.C. § 103 as being obvious in light of Palestiant. Applicant does not agree with these rejections. However, to expedite allowance, amendments have been made to Claim 1 to further distinguish Palestiant.

Palestrant

Palestrant discloses a dual-lumen dialysis catheter designed to withdraw tainted blood from a vessel through a first lumen and return cleansed blood to the vessel through a second lumen. The catheter described in Palestrant must “accommodate substantial blood flow rates, and therefore [is] relatively large.” Palestrant at 1:18-21. In fact, the dialysis catheter of Palestrant typically fills the entire vessel to preclude any tainted blood from escaping downstream. *See* Fig. 4 (shown below).



Moreover, the lumens of the blood inlet and blood outflow channels are necessarily both equal in size to provide balanced blood intake and blood return flows. *See* Fig. 2 (shown below); *Id.* at 1:24-29.



Further, the blood return lumen extends downstream beyond the blood intake lumen to ensure that the cleansed blood does not mix with the tainted blood. *See* Fig. 5 (shown on the following page)(arrows at lumen distal ports indicate direction of fluid flow); *Id.* at 8:23-34. Additionally, the distal end of the blood return lumen is “sufficiently pliable *to collapse and flatten in the absence of any positive fluid pressure.*” *Id.* at 7:13-19 (emphasis added); *See also* Figs. 3A, 3B, & 6 (shown on the following page).

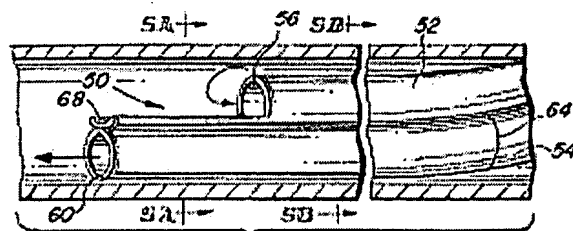


FIG. 5

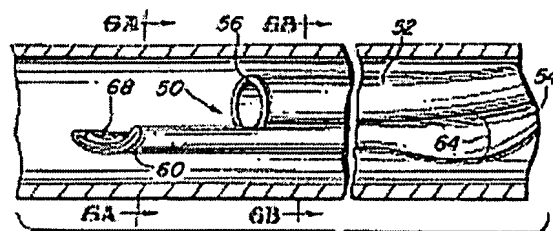


FIG. 6

The collapsibility is described as preventing the buildup of clots on the catheter body and decreasing the turbulence of blood flow within the vessel. *Id.* at 1:32-46.

In contrast to Palestrant, Claim 1 has been amended to recite an aspiration catheter, comprising:

- an elongate catheter body having proximal and distal ends;
- an aspiration lumen extending longitudinally through the elongate catheter body between the catheter body proximal end and an aspiration port at the catheter body distal end, the aspiration port being sized for aspirating particles from a blood vessel; and
- a guidewire lumen being adapted for slidably receiving a guidewire and extending longitudinally through at least a portion of the elongate catheter body adjacent the aspiration lumen, from a proximal port to a distal port opening to the exterior of the elongate catheter body; and
- wherein the elongate catheter body includes a distal segment wherein the aspiration lumen extends distally beyond the distal port of the guidewire lumen, the aspiration lumen within the distal segment being configured to convey embolic material proximally from the blood vessel upon exposure to a source of negative pressure.

Unlike amended Claim 1, Palestrant discloses that the lumen that extends the most distally is not for aspiration, but is for infusing cleansed blood. Moreover, as discussed above, the Palestrant device cannot be reversed such that the lumen that extends the most distally is used for aspirating because Palestrant teaches that this lumen should collapse in the absence of a positive pressure. Thus, using Palestrant in a manner oppositely from how it is described would result in an inoperable device.

Thus, for at least the reasons set forth above, Palestrant does not describe all the limitations of amended Claim 1. Claims 2, 5-7 depend from Claim 1 and further define the invention thereof. For example, dependent Claim 5 discloses a guidewire lumen that is located

only along a distal end portion of the elongate catheter body. This feature of Claim 5 is not described in Palestrant. Accordingly, these claims are allowable for the same reasons that Claim 1 is allowable and are allowable in their own right. Applicant requests that Claims 1, 2, and 5-7 be allowed.

Rejections Under 35 U.S.C. § 103(a)

In the Office Action, Claims 3-4 and 10 were rejected as being unpatentable over Palestrant in view of U.S. Patent 6,234,995 to Peacock, III (Peacock). The shortcomings of Palestrant have been discussed above. Also, Peacock fails to overcome the shortcomings of Palestrant. For this reason, Applicant requests that the rejection of Claims 3-4 and 10 be withdrawn and that these claims be allowed.

New Claims

Applicant has added new claims 42-57 and believes that these claims also encompass the invention of elected Group I, as defined in the Restriction Requirement dated October 5, 2006. Provided the above analysis, Applicant believes these new claims are in condition for allowance and should be allowed.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. Furthermore, any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on that portion or that the limitation discussed is essential or critical; rather, patentability must rest on each claim taken as a whole. Applicant respectfully traverses each of Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches, even if not expressly discussed herein. Although changes to Claim 1 have been made, no acquiescence, disclaimer or estoppel is intended or should be implied thereby; such amendments are made only to expedite prosecution of the present application and are without prejudice to the presentation or assertion, in the future, of claims relating to the same or similar subject matter.

Application No. 10/612,719
Amd. Dated: July 13, 2007
Reply to Office Action mailed October 9, 2007

The Commissioner is hereby authorized to charge any additional fees which may be required under 37 C.F.R. 1.17, or credit any overpayment, to Deposit Account No. 01-2525. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at telephone (978) 739-3075 (Eastern Time).

Respectfully submitted,

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